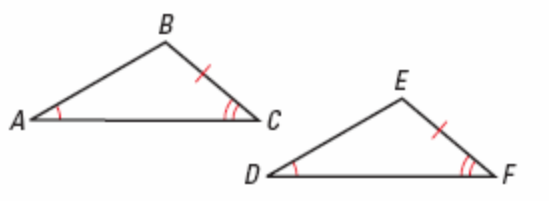
Geometry Date_____ 4.4 Notes
Proving Triangles Congruent by ASA & AAS (pp 220-222)

ASA Postulate:

1. Example.

Given: $\measuredangle A \cong \measuredangle D$
$\measuredangle C \cong \measuredangle F$
$\overline{BC} \cong \overline{EF}$

Prove: $\triangle ABC \cong \triangle DEF$



AAS Theorem:

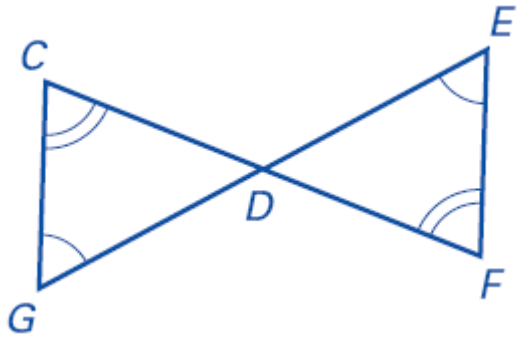
Geometry Date_____ 4.4 Notes
Proving Triangles Congruent by ASA & AAS (pp 220-222)

Ways to Prove Triangles Congruent

Ways that you cannot use to prove triangles congruent.

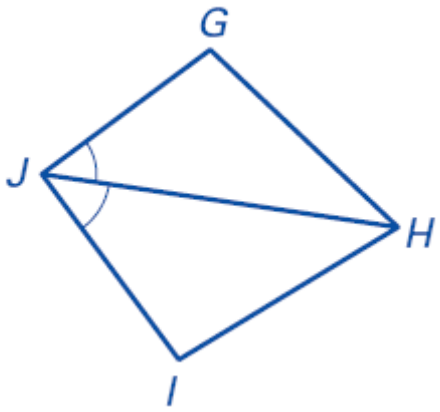
Examples.
Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem.

2.



3.

4. Guided Practice.



Geometry Date_____ 4.4 Notes

Proving Triangles Congruent by ASA & AAS (pp 220-222)

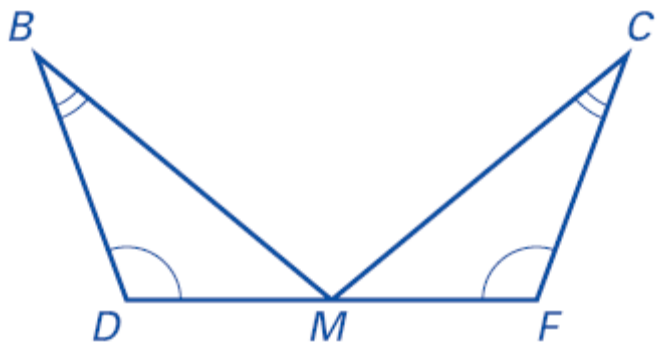
5. Example.

$\measuredangle B \cong \measuredangle C$

Given: $\measuredangle D \cong \measuredangle F$

M is the midpoint of $\overline{DF}$.

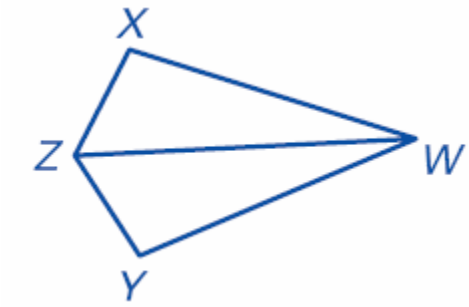
Prove: $\triangle BDM \cong \triangle CFM$



6. Guided Practice.

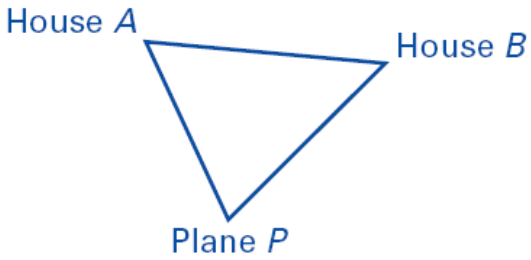
Given: $\overline{WZ}$ bisects $\measuredangle XZY$ & $\measuredangle XWY$.

Prove: $\triangle WZX \cong \triangle WZY$



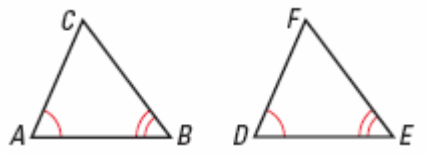
Geometry Date_____ 4.4 Notes
Proving Triangles Congruent by ASA & AAS (pp 220-222)

7. Example. When searching for a missing airplane, searchers used observations from people in two different areas of a city. As shown, the observers were able to describe sight lines from observers in different houses. One sightline was from observers in House A and the other sightline was from observers in House B. Assuming the sightlines are accurate, did the searchers have enough information to locate the airplane?



Guided Practice.
State the third congruence that must be given to prove that using the indicated postulate or theorem.

8. ASA Congruence



9. AAS Theorem